

Shift work induced lifestyle change and its adverse health effects in software sectors

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A study was conducted during the year 2009-2010 with the objective to know the impact of changed lifestyle on the health status of the software engineers. A total of 70 (36 day workers and 34 shift workers) subjects in the age group of 22-33years, belonging to software profession in Bhubaneswar, Orissa were considered for the study. Results indicated that smoking, alcohol consumption was more in shift workers compared to day workers. Approximately fifty five per cent shift workers were not satisfied with their sleeping habit. Impairment in the social life, personal life and family relationship were the most common complaints reported by the shift workers compared to day workers. The mean BMI of the shift workers was 25.82 kg/m² which were higher than that of day workers, 23.37 kg/m². Higher mean of serum total cholesterol (195.33 mg/dl), triglycerides (159.65 mg/dl), LDL-cholesterol (125.48 mg/dl) levels in shift workers compared to permanent day workers (total cholesterol 173.43mg/dl, triglycerides 150.08mg/dl, LDL-cholesterol 114.17mg/dl) were observed. The health score for the shift work group (2.67±1.03) was remarkable lower than the day work group (3.66±0.79). In conclusion, shift workers were characterized by higher BMI, and increased biochemical parameters.

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INTRODUCTION

Shift work is an employment practice designed to make use of the 24 hours of the clock, rather than a standard working day in normal day light hours of 9am to 5pm (Presser, 2003). Around twenty per cent of individuals in the industrialized countries have irregular work hours. As people work in irregular hours, their daily routine is interrupted; regular eating and exercise habits are difficult to maintain. Changes in lifestyle, such as higher tendency to smoke and drink particularly in shift workers, have been associated with increased BMI, which in turn contribute to higher level of hypertension and cardiovascular risk. In addition, these daily habits (lack of exercise, smoking and alcohol consumption) and their immediate consequences (*e.g.* obesity) are the fundamental

cause of chronic diseases. So, the study was conducted with the objective to know the impact of changed lifestyle on the health status of the software engineers.

METHODOLOGY

The study was carried out during 2009-2010 at various software industries in Bhubaneswar, Odisha. A total of 70 (36 day workers and 34 shift workers) belonging to software profession were selected randomly for the study. All the subjects were male workers as there were no female workers working in shifts due to safety reasons.

All the shift workers followed an irregular rotating work schedule. The starting times of three shifts were 6.30 am for the morning shift, 2.30 pm for the evening shift and 10.30p.m for the night shift. The subjects selected for the study were having at least shift work experience from 6 months to 1½ years. Permanent day workers were the workers of typical day schedule who work for 8 hours. They were all in the same age range and from the same profession doing the

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